inSentry Pro
User's Guide
Smart Solution for Your Wide Monitoring

inSentry Pro
User's Guide

Version 1.0

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Electronic Emission Notice

Federal Communications Commission

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

CE Notice

This device complies with the EMC directive of the European Community and meets or exceeds the following technical standard:

- EN 55022:1998 – “Limits and Methods of Measurement of Radio interference Characteristics of information Technology Equipment.” This device complies with the CISPR Class B standard.
- EN 55024:1998 – ”Electromagnetic compatibility – Generic immunity standard Part1: Residential, and light industry.”

RoHS

This device is RoHS compliant.

Safety Information

- To reduce the risk of fire or electric shock, install the unit in a temperature-controlled indoor area free of conductive contaminants. Do not place the unit near liquids or in an excessively humid environment.
- Do not allow liquids or foreign objects to enter the unit.
- The unit does not contain any user-serviceable parts. Do NOT open the unit.
- All the services of this equipment must be performed by qualified service personnel.
- Remove all metallic jewelry or other accessories before servicing the unit.
- Before maintenance, repair or shipment, the unit must be completely switched off and unplugged and all connections must be removed.
- Before connecting the inSentry Pro to the power supply, make sure the rating of power source is consistent with the rating of power adapter of the inSentry Pro.

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1 Introduction

The inSentry Pro is a connectivity device for remote monitoring of the temperature, humidity, and status of 24 environmental monitoring devices (EMDs) via a standard web browser. Six sets of relay output are equipped to trigger extended devices by events, providing detailed information and flexible monitoring.

1.1 Features

The inSentry Pro supports the following features:

- **Hot-swapping**

  You can install the EMDs safely without powering down the inSentry Pro.

- **Temperature and humidity monitoring**

  You can monitor the temperature and humidity of any desired environment to protect critical equipment.

- **Contact closure status monitoring**

  You can monitor the status of contact devices to protect your critical equipment.

- **The inSentry Pro functions configuration from any client (password protected)**

  You can set the inSentry Pro settings from any SNMP management station or by web browser using HTTP forms and objects.

- **E-mail notification**

  Supports e-mail notification through SMTP via e-mail client software, phone, or alphanumeric pager when alarms are triggered or contact status changes.

- **History logs and events**

  When the temperature and humidity values exceed the user-defined limits, or the status of the contact closure changes, the logs are recorded in the History Log of the inSentry Pro.

- **Relay output support**

  You can attach external alarms to the relay outputs to notify you audibly when an event is triggered. You can also attach other types of sensors to the dry contact port of EMD to enhance the functionality of the system. These sensors can include security detectors, smoke detectors, water leak sensors, vibration sensors, motion detectors, and air flow sensors.

Package Contents

iinSentry Pro

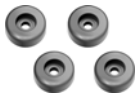
U-type handles (x 2)

EMD (environment monitoring device)

Ears (x 2)

U-type handle screws (x 4)

RJ45 to RJ45 male cable for EMD connection



Feet (x 4)

Ear screws (x 6)

Small package containing cable clamp, Velcro or machine screw to fix EMD box on the wall

Feet screws (x 4)

AC power cord

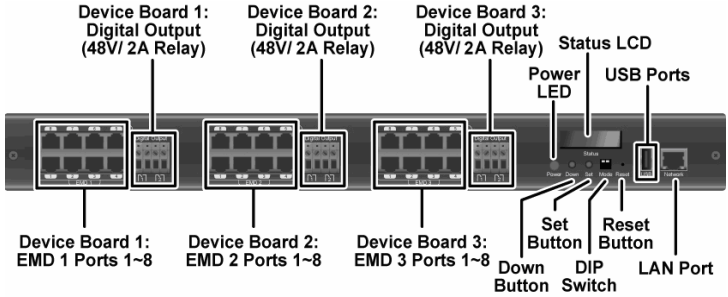
Quick Start Guide

CD-ROM (containing MIB file for SNMP Network Management System (NMS), Quick Installation Guide, and User's Guide)

Optional:

1) Package containing 8 EMDs, 1 Ethernet cable (2m), 1 cable clamp, Velcro (50x25mm), Philips-type screw
2) Security Detector, Smoke Detector, Water Leak Sensor, Vibration Sensor, Motion Detector, Air Flow Sensor

1.2 Front View



Note: The USB 2.0 ports are standard interface connectors, designed primarily for use with an external keyboard or keypad.

Figure 1-1 inSentry Pro front view

1.3 Rear View

Figure 1-2 inSentry Pro rear view

2 Installation

To install the inSentry Pro on a network and change its configuration, you need a workstation running Microsoft Windows (2000, XP or Vista). To configure the inSentry Pro, connect it to your LAN and follow the instructions in the subsequent sections.

2.1 Installing the inSentry Pro via LAN

Follow the steps below to install the inSentry Pro via a LAN connection.

1. Ensure your workstation has a web browser installed and is connected to your LAN via a hub router.

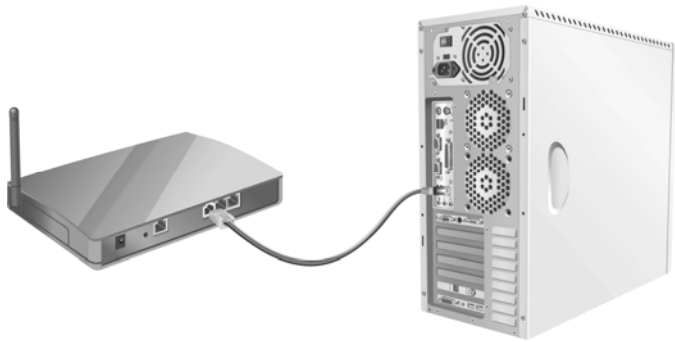


Figure 2-1 Connect workstation to hub

2. Connect one end of the supplied network cable (twisted-pair cable) to the LAN port on the front of the inSentry Pro and the other end to your hub.

Figure 2-2 Connect inSentry Pro to hub

3. Set the DIP switches of the inSentry Pro to **OFF** by moving the switches upward.

Figure 2-3 Set DIP switches to OFF

4. Connect one end of the supplied CAT 5 network cable to any of the device board ports on the front of the inSentry Pro and the other end to the port labeled “010101” on an EMD.

Figure 2-4 Connect an EMD to inSentry Pro

5. Insert the on end of the power connector to the AC-In jack on the rear of the inSentry Pro. Connect the other end into a power socket.

Figure 2-5 Connect the power connector

Upon successful connection, you can configure the inSentry Pro via the web browser from any workstation connected to the same LAN as the inSentry Pro. For further details, please refer to Chapter 0.

2.2 LED Overview

When you have successfully installed and powered on the inSentry Pro, check the power LED and LCD screen to ensure it is operating properly. The power LED should be green and **System Power On** should be displayed on the LCD screen.

The power LED is a bi-color LED, whose changes state depending on the alarm level.

1. Power LED Status

LED color	Alarm Level
Green	None
Green	Informational
Red	Warning
Red	Critical

Note: If the sensor or output device is enabled from the Configuration page but the device is not connected, it is considered as an alarm of communication loss. Therefore, the LED will be flashing.

2.3 LCD Screen Overview

You can view and configure main system settings using the LCD screen and the **Down** and **Set** buttons on the front of the inSentry Pro (see Front View on page 9 for exact location of the switches).

The LCD screen operates in two modes: **idle** mode and **operation** mode.

2.3.1 LCD Screen in Idle Mode

When you start the system, the LCD screen is in idle mode. In this mode, system information, along with temperature, alarm and humidity data for each connected EMD device is displayed. Press the **Down** button to scroll through the displayed information.

2.3.2 LCD Screen in Operation Mode

Press the **Set** button to enter operation mode. You can perform system configuration through the menus available in operation mode.

- Press the **Down** button to scroll through the settings menus.
- Press the **Set** button to enter settings menus and adjust values.
- To exit a settings menu without making any changes, press the **Set** and **Down** buttons simultaneously.

See the following for all available settings menus in operation mode.

Figure 2-6 LCD Screen: Operation mode menus

No.	Setting Menu	Description	Default
1	IP Address	Set the IP address	192.168.xxx.xxx
2	Net Mask	Set the net mask	255.255.000.000
3	Gateway	Set the gateway	192.168.xxx.254
4	HTTP Security	Enable or disable login and password request for HTTP access	Enabled
5	Telnet Control	Enable or disable the TELNET protocol	Enabled
6	DHCP Function	Enable or disable the DHCP protocol	Disabled
7	Power Saving	Enable or disable the power saving function	00060
8	Back to Idle	Return to idle mode	N/A

3 Configuration

3.1 Configuring network settings for the inSentry Pro

Note: If there is no DHCP network service on the network, contact your network administrator to get an IP address for your inSentry Pro and set the IP address to your inSentry Pro. If the administrator gives you the same IP address as inSentry Pro's default IP address, you can omit setting the IP address for inSentry Pro.

You must set an IP address, net mask, and gateway via the LCD screen on the front of the inSentry Pro to connect it to your LAN before you can begin using the system.

1. Press the **Set** button on the front of the inSentry Pro so **System Config** displays on the LCD screen.
2. Press the **Set** button.
3. Press the **Down** button until **IP Address** displays on the LCD screen. Press the **Set** button.
4. Enter the IP address given to you by your network administrator. Press the **Set** button to increase or decrease a number, and the **Down** button to move to the next number.
5. Press the **Set** and **Down** buttons simultaneously to exit the setting menu once you have entered the IP address.
6. Repeat steps 1-5 above to enter the net mask and gateway (listed as **Net Mask** and **Gateway** in the system configuration menu).
7. Configure any of the other system configurations you require (see Figure 2-6 LCD Screen: Operation mode menus for details), then select **Back to Idle** to complete the system setup.

3.2 Configuring inSentry Pro via Telnet

When you have installed the inSentry Pro via LAN (refer to Chapter 2.1), you can configure the inSentry Pro via Telnet by the following steps.

1. Make sure you have a PC with the TCP/IP network installed.
2. Run command shell (i.e. Windows MS-DOS prompt).
3. The inSentry Pro will initially try to acquire an IP address from the DHCP network service on the network, if available.
4. Type “Telnet < *inSentry Pro IP address*>” and press **Enter**.
5. From this point, the configuration procedures are the same as the configuration described in Chapter 3.1 Configuring network settings for the inSentry Pro.

Note: If there is no DHCP network service on the network, contact your network administrator to get an IP address for your inSentry Pro and set the IP address to your inSentry Pro. If the administrator gives you the same IP address as inSentry Pro's default IP address, you can omit setting the IP address for inSentry Pro.

4 Managing inSentry Pro via Web Browser

4.1 Manipulating Network Routing Table in Windows

Normally, if the workstation and the inSentry Pro are in the same subnet, you can access the inSentry Pro directly by the web browser installed on the workstation. If not, follow the steps below to use the “route add” command to manipulate the network routing table in your workstation.

1. Procure a workstation (with Microsoft Windows 95, 98, ME, NT4.0, 2000, or XP installed) and set up the TCP/IP protocol, if necessary.
2. Run command shell (i.e. Windows MS-DOS prompt).
3. Enter the following command to add a routing condition: **route add <inSentry Pro IP> <workstation IP>**, e.g., “route add 172.17.7.18 210.67.192.147”, and press **Enter**.

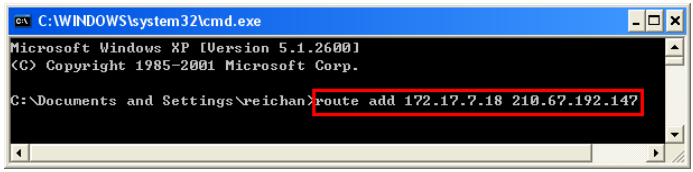

C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\reichan>route add 172.17.7.18 210.67.192.147

Figure 4-1 Add a routing condition in command shell

Note: The default IP address of the inSentry Pro is 192.168.*XXX*.*ZZZ* where *XXX* and *ZZZ* are the last two pairs of the MAC address of inSentry Pro in decimal. For example, if the inSentry Pro MAC address = 00 E0 D8 04 0A 15, the default IP = 192.168.10.21. Refer to the Windows manual for detailed information on how to add a routing condition to the workstation.

4. Open a web browser and enter the IP address of the inSentry Pro.
5. The **Comprehensive View** page displays. Click the **Help** icon located on the top right hand corner of each page for detailed description. While navigating the screens, press the **Back** icon to return to the previously-viewed screen.

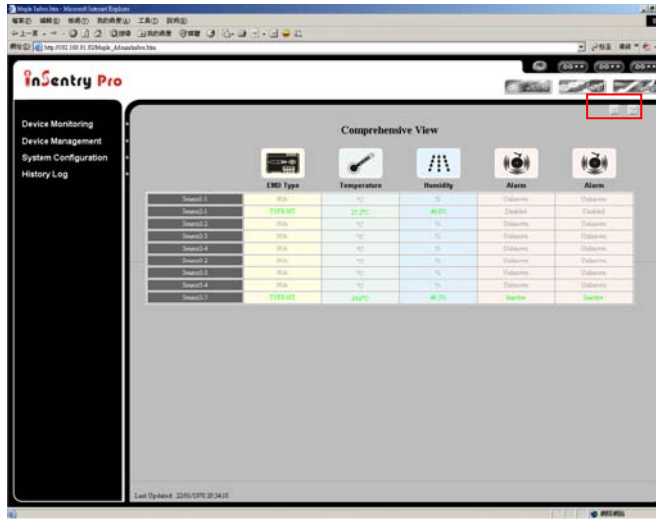


Figure 4-2 Use the Help and Back icons to navigate the screens

4.2 Initial Configuration

The first time you access the inSentry Pro via the web browser, please follow the steps below to configure the basic settings.

1. Click the **Device Management** menu. Click the **Become Administrator** button at the bottom of the screen. Enter the default login name (**inSentry Pro**) and password (**admin**). The login name and password are case-sensitive.
2. Click the **System Configuration** menu, then do the following:
   - Click **System Configuration**. Modify the IP address, gateway, and subnet mask if necessary (see Chapter 4.5.2 System Configuration). Click the **Set Value** button to save the changes.
   - Click **Date and Time**. Enter the date and time settings (see Chapter 4.5.1 Date and Time). Click the **Set Value** button to save the changes.
3. Click **System Control** to enable or disable the network protocols (see Chapter 4.5.3 System Control). Click the **Apply** button to save the changes.

Note: These settings can also be set via the LCD screen on the front of the inSentry Pro. See 2.3.2 LCD Screen in Operation Mode for more details.

4.3 Device Monitoring

There are six sub-menus in the **Device Monitoring** menu:

- **Comprehensive View**
- **Device Board-1 Web Pages**
- **Device Board-2 Web Pages**
- **Device Board-3 Web Pages**
- **Identification Web Pages**
- **Alarm Table Web Pages**

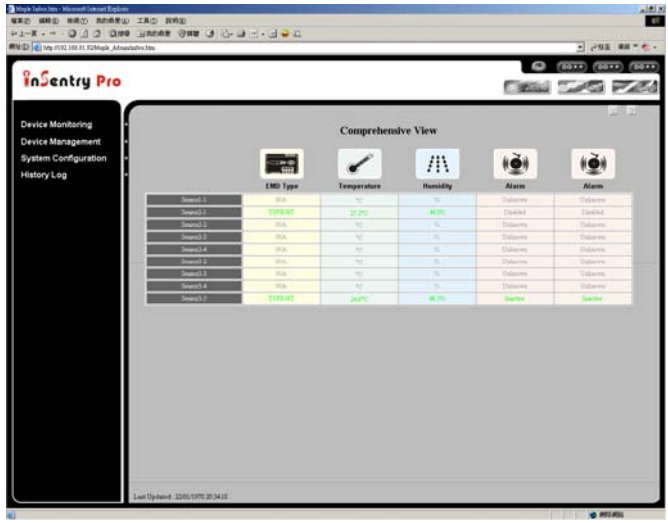


Figure 4-3 Device Monitoring-Comprehensive View screen

4.3.1 Comprehensive View

This screen displays the information of all the sensors and output devices connected to the inSentry Pro. It also provides an overview of alarm status.

This page is the default home page of the inSentry Pro. A summary of all the devices connected to the inSentry Pro is presented. The parameters are updated automatically every 5 seconds.

Figure 4-4 Comprehensive View screen

The text color of each parameter indicate status:

Text Color	Status
Green	Normal
Yellow	Warning
Red	Critical
Grey	Unknown

The text color of the alarm columns also indicate status:

Text Color	Status
Red	Alarm is active
Green	Alarm is inactive

4.3.2 Device Board Web Pages

The **Device Board 1**, **2**, and **3 Web Pages** provide detailed information for all sensors or output devices connected to each device board. The parameters are updated automatically every 5 seconds.

Note: The following instructions apply for each of the **Device Board-1 Web Page**, **Device Board-2 Web Page**, and **Device Board-3 Web Page** screens.

Click the **Reset** button to reset data for a specific parameter, or the **Reset All** button reset data for all parameters for a specific sensor or output device.

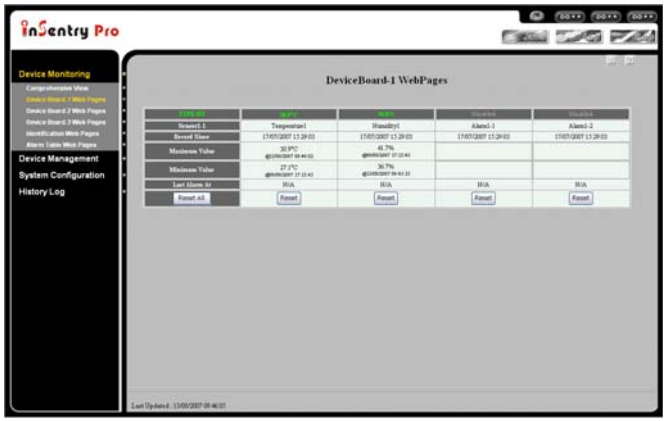


Figure 4-5 Device Board Web Page screen

4.3.3 Identification Web Pages

This screen provides general inSentry Pro identification information, including firmware version and the date and time. All the information in this page is read-only.

Figure 4-6 Identification Web Page screen

4.3.4 Alarm Table Web Pages

This screen provides information on the number of currently active alarms, alarm ID, alarm time, and alarm description. All the information in this page is read-only. This page will refresh automatically.

When an alarm is activated, you can access this screen from any page by clicking the alarm icon at the top of the screen.

Figure 4-7 Alarm Table Web Page screen

4.4 Device Management

The **Device Management** menu allows the configuration of EMD sensors, VDC sensors, and output controls connected to each of the device boards on the inSentry Pro.

There are six sub-menus in the **Device Management** menu:

- **Device Board-1**
- **Schedule of Device Board-1**
- **Device Board-2**
- **Schedule of Device Board-2**
- **Device Board-3**
- **Schedule of Device Board-3**

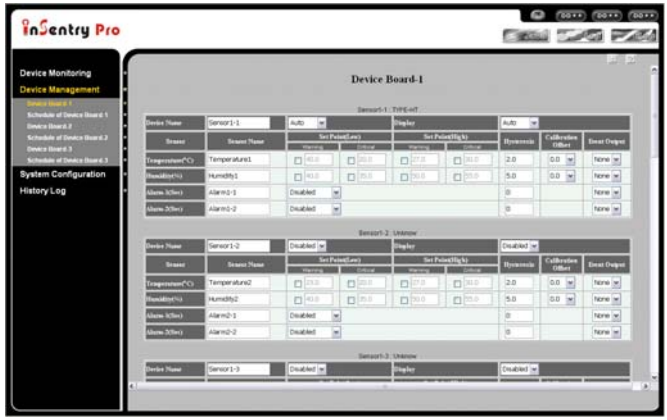


Figure 4-8 Device Management: Device Board 1 screen

4.4.1 Device Board Screens

The **Device Board-1**, **Device Board-2**, and **Device Board-3** screens allow you (as administrator) to configure settings and alarm schedules for eight EMDs (maximum) on each device board.

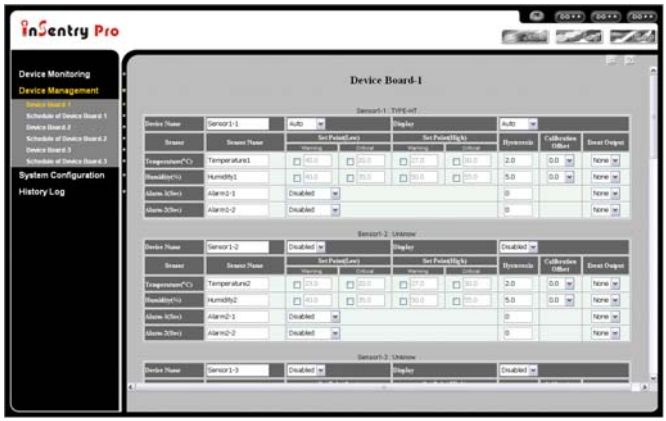


Figure 4-9 Device Board 1 screen

Note: The following instructions apply for each of the **Device Board-1**, **Device Board-2**, and **Device Board-3** screens.

Configure the following settings for a new device:

- **Device Name**: Enter the device name.
- **Device Status**: Select **Auto** from the drop down menu to enable the device or **Disabled** to disable.
- **Display**: Select **Enable** from the drop down menu to display the device in the Comprehensive View screen and Java display or **Disabled** to disable.

- **Set Point**: Enter a temperature or humidity value over or under which an alarm will be triggered. You can enter values for warning or critical levels. The valid ranges are as follows:
  Temperature: -15°C (5 °F) to 65 °C (149 °F)
  Humidity: 5% to 95%

- **Hysteresis**: A sensors value could be floating around the configured threshold, triggering multiple alarms. Set the hysteresis will help to prevent the alarm being constantly activated and deactivated in this situation.

  For example, if the low warning threshold point is 20 and hysteresis is 3, then the alarm will activate when the value reaches 20 but will not deactivate until the value reaches 23.

  For the contact alarm sensors, the hysteresis can be used to adjust the sensitivity of an alarm. The alarm will be active or inactive only after the alarm stays in the same state of the hysteresis value (in seconds).

- **Calibration Offset**: If the measurement value of a sensor does not comply with the actual environment for whatever reason, a calibration offset value can be set to adjust the final sensor reading.

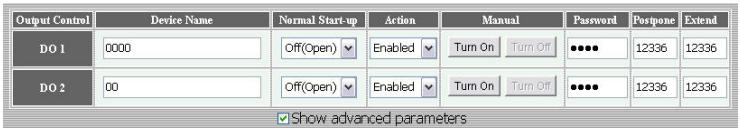
  For example, if a sensor reports 43% humidity in an environment where humidity is at 45%, you can set the humidity offset to 2% so the sensor can adjust its final reading.

- **Alarm Type**: If an alarm is connected to the inSentry Pro, select from **Normal Open**, **Normal Close**, **High Active**, **Low Active**, or **Disabled**.

  Normal Open & **Normal Close** are used for a two wire detector that emulates an open/close state. **High**

Active and **Low Active** are used when a 'contact closure' type detector is attached.

- **Event Output**: Select from **D01** or **D02** as the event output when a digital output is connected. Scroll down to the bottom of the screen to configure output control settings. Check **Show advanced parameters** and the following will display:



Configure the following settings:

- **Device Name**: Enter the device name.
- **Normal Start-up**: Select **On(Close)** or **Off(Open)** to configure the normal status of the device.
- **Action:** Select to **Enable** or **Disable** digital output.
- **Manual Control**: Select **Turn On** to turn on a device manually or **Turn Off** to turn it off.
- **Password**: Enter a password for each digital output. It must be 4 digits long, within the range of **0000** – **9999**.
- **Postpone**: Enter a value in seconds by which the alarm trigger time can be postponed if necessary. If set to zero, the digital output will be activated as soon as an alarm is triggered.
- **Extend**: Enter a value in seconds before which the digital output changes back to start up status after an alarm is triggered.

4.4.2 Schedule of Device Board Screens

The **Schedule of Device Board-1**, **Schedule of Device Board-2**, and **Schedule of Device Board-3** screens allow you (as administrator) to set a schedule by which alarms can be disabled.

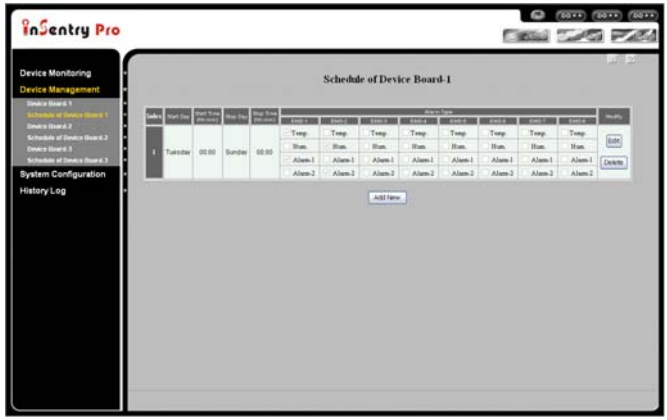


Figure 4-10 Schedule of Device Board 1 screen

Note: The following instructions apply for each of the **Schedule of Device Board-1**, **Schedule of Device Board-2**, and **Schedule of Device Board-3** screens.

Click **Add New** to create a new schedule.

Configure the following settings:

- **Alarm Disable Start Day**: Select the day of the week on which the alarm will be deactivated.
- **Alarm Disable Start Time**: Enter the start time.
- **Alarm Disable Stop Day**: Select the day of the week on which the alarm will be reactivated.

- **Alarm Disable Stop Time**: Enter the stop time.

- **Alarm Type**: Select the alarm types to deactivate during the scheduled time. Only alarm types that are selected will sound if triggered.

Click **Set Value** to confirm and save the schedule.

The configured schedule will appear on the screen. Click the **Edit** button to edit the schedule details or the **Delete** button to delete the schedule.

4.5 System Configuration

The **System Configuration** menu allows you to configure all system settings on the inSentry Pro.

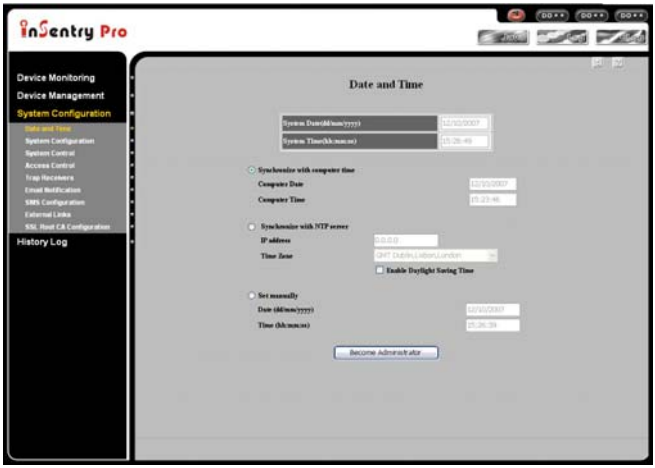


Figure 4-11 System Configuration: Date & Time

There are nine sub-menus in the **System Configuration** menu:

- **Date and Time**
- **System Configuration**
- **System Control**
- **Access Control**
- **Trap Receivers**
- **Email Notification**
- **SMS Configuration**
- **External Links**
- **SSL Root CA Configuration**

4.5.1 Date and Time

This screen allows you (as administrator) to set the date and time of the inSentry Pro manually or synchronize the settings with the computer time or an NTP server.

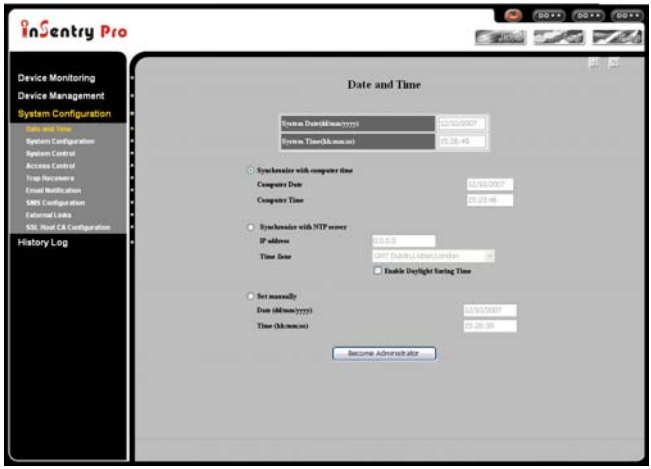


Figure 4-12 Date and Time screen

4.5.2 System Configuration

This screen allows you (as administrator) to set all system configuration settings.

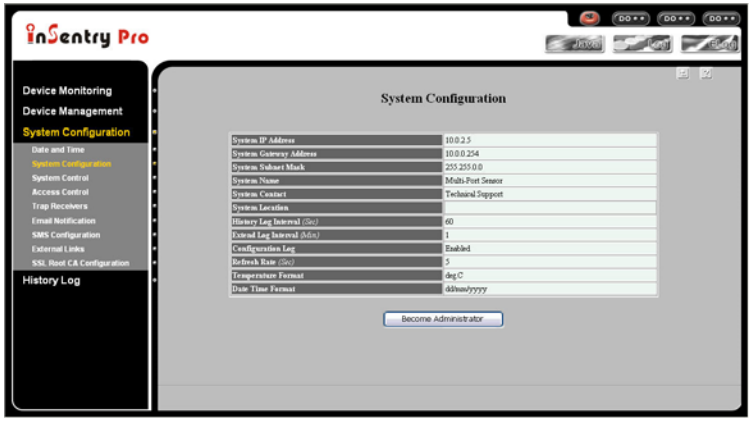


Figure 4-13 System Configuration screen

4.5.3 System Control

This screen allows you (as administrator) to enable or disable the communication protocols available in the inSentry Pro, or assign a different port number for the communication protocol. You can also click the **Reset to Default** button to reset all default configurations for the inSentry Pro, or the **Restart inSentry Pro** button to restart the inSentry Pro.

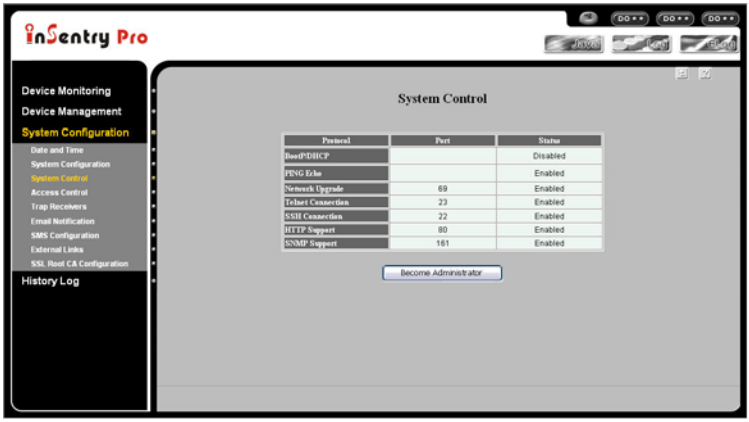


Figure 4-14 System Control screen

4.5.4 Access Control

This screen allows you (as administrator) to add NMS stations specified for read-only, read/ write, or restricted access to the inSentry Pro.

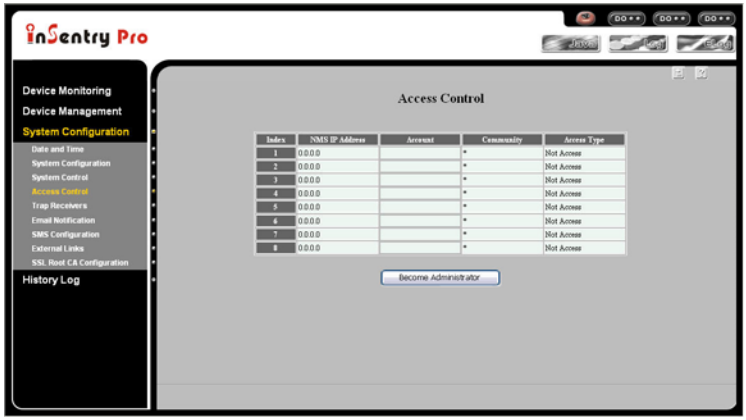


Figure 4-15 Access Control screen

4.5.5 Trap Receivers

This screen allows you (as administrator) to modify the settings for SNMP trap receivers (for SNMP Network Management).

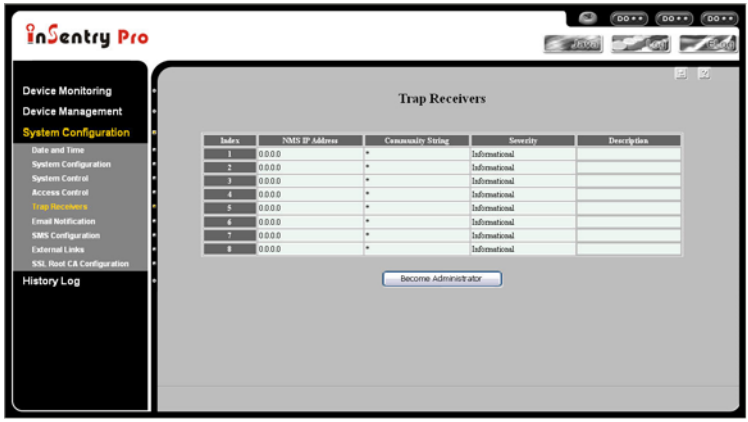


Figure 4-16 Trap receivers screen

4.5.6 Email Notification

This page allows you (as administrator) to configure the mail server and mail receiver settings to send and receive alert emails when an event occurs.

After setting up the mail server and receiver, you can click the **Send Test** button to make sure your email system is working properly.

Figure 4-17 Email notification screen

4.5.7 Send Short Message

This page allows you (as administrator) to configure the SMS settings for sending messages to receivers when events occur.

Follow the steps below to add/edit/delete a short message.

1. You have to connect the GSM modem to inSentryPro, see as below:

Figure 4-18 Connect GSM modem to inSentry Pro

2. Set the **GSM modem function** to enable.

Figure 4-19 SMS configuration screen

Configure the following settings for enable/disable the GSM modem:

- **GSM Modem Function**: Choose **Enable/ Disable** to enable and disable the **GSM Modem Function**. The maximum of phone number is 12.
- **Authentication and Pin Code**: If the SIM card is locked by PIN code, you must mark **Authentication** and enter the correct Pin Code into **Pin Code**.
- **Set Value**: Press the **Set Value** button to confirm.

3. Add a new message for SMS receiver.

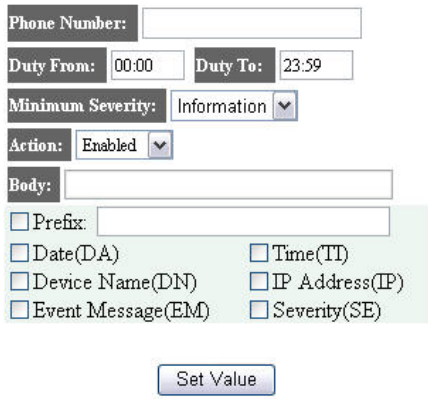


Figure 4-20 New SMS screen

Configure the following settings for a new message:

- **Phone Number:** Enter a phone number that you want to send.

- **Duty From and Duty To:** Enter a start and end time. In this period of time, the SMS receivers can receive inSentry Pro's SMS when events occur.
- **Minimum Severity:** Choose the **Information/ Warning/ Severe** to set the minimum level of the event to be received.
- **Action:** Choose **Enable/ Disable** to enable/ disable sending the message to the SMS receiver.
- **Body:** Enter the content of the SMS.
- **Prefix:** Enter the title of SMS. The maximum size is 30 characters.
- **Set Value**: Press **Set Value** to confirm and then the setting is listed on the **SMS configuration** screen.

4. If you need to edit or delete SMS messages, you can press **Edit/ Delete/ Delete All** to configure the messages on the SMS configuration screen.

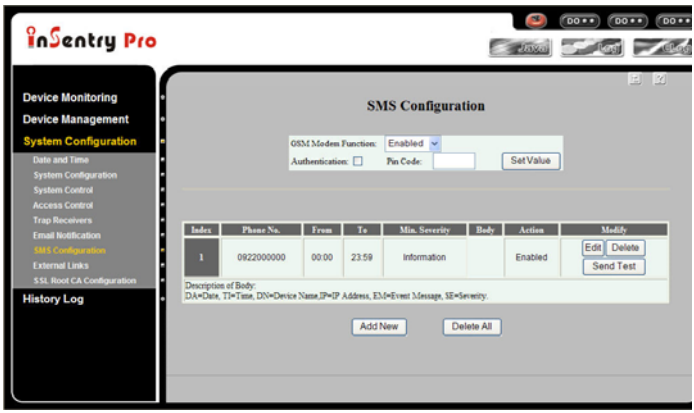


Figure 4-21 SMS configuration screen with SMS list

4.5.8 External Links

This screen allows you (as administrator) to specify up to ten links in this page. Each link can be configured to an external web page, such as another inSentry Pro or Technical Support home page. The links will appear under the “External Links” menu on the left.

Figure 4-22 External links setup screen

Figure 4-23 The links appear on the left of the screen

4.5.9 SSL Root CA Configuration

You can download the Root CA certificate of the inSentry Pro and the Root CA certificate of the inSentry Pro for Java plug-in. The inSentry Pro Root CA self-signed certificate contains the inSentry Pro Root CA public key. Installing the inSentry Pro Root CA prevents the browser from prompting for CA confirmation when opening the inSentry Pro pages with HTTPS.

Figure 4-24 SSL Root CA Configuration screen

4.6 History Log

The **History Log** menu displays detailed past activity for each connected EMD sensor and the inSentry Pro system as a whole.

Figure 4-25 History: History Log Index Of Device-1 Page

There are eleven sub-menus in the **History Log** menu:

- **History Log of Device-1**
- **History Log of Device-2**
- **History Log of Device-3**
- **Extended Log of Device-1**
- **Extended Log of Device-2**
- **Extended Log of Device-3**
- **Device-1 Events**
- **Device-2 Events**
- **Device-3 Events**
- **System Events**
- **Clear/Save Log**

4.6.1 History Logs of Devices

These screens give a snapshot of all the fundamental EMD parameters on each of the three device boards. The existing values will be overwritten when the maximum number of entries (rows) is reached. The administrator has the right to delete the table entries.

Note: To save the history log, please refer to Chapter 4.6.5.

Figure 4-26 History Log Index Of Device-1 Page

History Log Data Of Device-1

Log Date (dd/mm/yyyy)	Log Time (hh:mm:ss)	Temp-1 (°C)	Temp-2 (°C)	Temp-3 (°C)	Temp-4 (°C)	Temp-5 (°C)	Temp-6 (°C)	Temp-7 (°C)	Temp-8 (°C)	Hum-1 (%)	Hum-2 (%)	Hum-3 (%)	Hum-4 (%)	Hum-5 (%)	Hum-6 (%)	Hum-7 (%)	Hum-8 (%)
13/08/2007	20:00:08	30.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13/08/2007	20:01:08	30.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13/08/2007	20:02:08	30.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13/08/2007	20:03:08	30.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Figure 4-27 History Log Data of Device-1

4.6.2 Extended Logs of Devices

These screens give a consolidated view of the EMD, sensor, and output device parameters taken over a period on each of the three device boards. The minimum, maximum and the average values of temperature, humidity, and voltage are shown.

Note: The administrator can change the consolidation interval by changing the value of the Extended Log Interval in “System/ Configuration” page. The existing logs will be overwritten when the maximum number of entries is reached.

Figure 4-28 Extended Log Index Of Device-1 Page

Extended Log Data Of Device-1
Start Date (dd/mm/yyyy)
Start Time (hh:mm:ss)
End Date (dd/mm/yyyy)
End Time (hh:mm:ss)
Temp-1 (°C)
Temp-2 (°C)
Temp-3 (°C)
Temp-4 (°C)
Temp-5 (°C)
Temp-6 (°C)
Temp-7 (°C)
Temp-8 (°C)
min avg max
13/08/2007 20:40:09 13/08/2007 20:41:08 30.7 30.7 30.7 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
13/08/2007 20:41:09 13/08/2007 20:42:08 30.7 30.7 30.7 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
13/08/2007 20:42:09 13/08/2007 20:43:08 30.7 30.7 30.7 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
13/08/2007 20:43:09 13/08/2007 20:44:08 30.7 30.7 30.7 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A

Figure 4-29 Extended Log Data of Device-1

4.6.3 Device Events

This page lists all the device events. The logs will be overwritten when the maximum number of entries (rows) is reached.

Figure 4-30 Device-1 Events Log Index screen

Events Log Data Of Device-1

Date (dd/mm/yyyy)	Time (hh:mm:ss)	Event Description
17/07/2007	15:27:14	Sensor1-1 communication lost
17/07/2007	15:27:26	Sensor1-1 communication restored
17/07/2007	15:28:45	Sensor1-1 communication lost
17/07/2007	15:29:06	Sensor1-1 communication restored
08/08/2007	17:05:57	Sensor1-1 communication lost

Figure 4-31 Events Log Data of Device-1

4.6.4 System Events

This page lists all the system events. The administrator has the right to delete the entries.

Figure 4-32 inSentry Pro events screen

System Events Log Data

Date (dd/mm/yyyy)	Time (hh:mm:ss)	Event Description
13/08/2007	09:48:53	Dev-1 EMD-1 Temp. low warn set point had changed from HTTP by 10.0.100.2
13/08/2007	09:48:55	Mail sent
13/08/2007	09:50:34	Dev-1 EMD-1 Alarm-1 normal status had changed from HTTP by 10.0.100.2
13/08/2007	09:50:34	Dev-1 EMD-1 Temp. low warn state had changed from HTTP by 10.0.100.2
13/08/2007	09:50:35	Mail sent

Figure 4-33 inSentry Pro events log data

4.6.5 Clear & Save

To save the inSentry Pro log data to a file in Microsoft Excel format, click the links under the **Save Log Data** section. You can also clear the log data in this page.

Figure 4-34 Clear and save log data screen

5 Monitoring inSentry Pro via Java Monitor

The inSentry Pro provides three real-time graphical user interfaces, **Java Monitor**, **History Log Monitor**, and **Extended History Log Monitor**, written in Java applet to give user an alternative way to monitor the sensors or output devices in LAN or WAN.

5.1 Java Monitor

Click the Java button

in the top right-hand corner of the inSentry Pro home page to display the Java Monitor. The Java Monitor provides a graphical view of all the principle sensor parameters for the sensor being monitored.

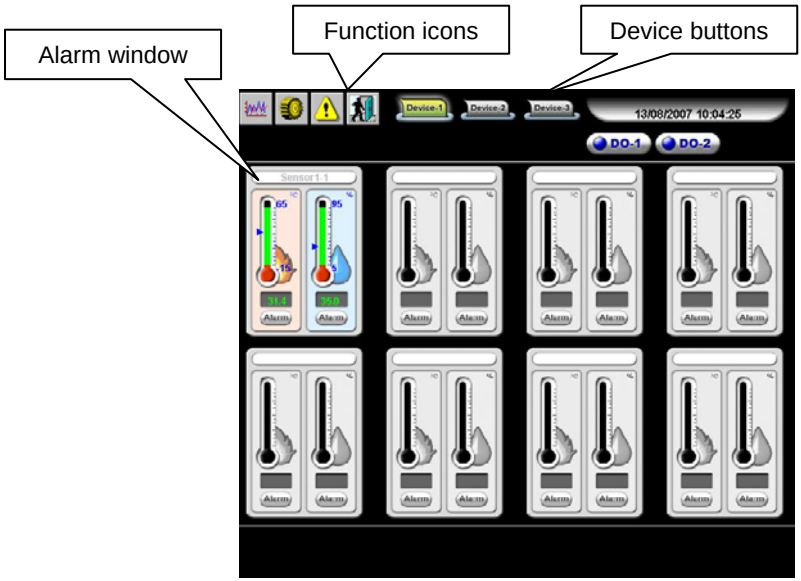


Figure 5-1 Java Monitor screen

Function Icons

	Display switch-Two display styles (gauge or overall chart presentation) can be selected. This icon is used to switch the display of the device parameters from gauge presentation to chart presentation and vice versa.
	Poll Rate- Configure the time interval that the Java Monitor retrieves the value of the devices. The default setting is 5 seconds.
	Event Message- Enable and disable the pop-up display of the warning messages.
	Exit- Exit the Java Monitor.

Alarm Window

When changes are detected in the system configuration or in the status of the connected sensors, the inSentry Pro displays a specific message in the Alarm Window. This type of status change message is an alarm.

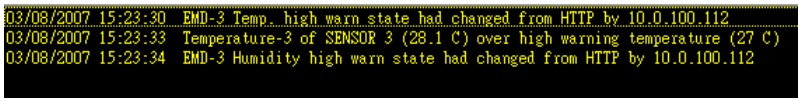

03/08/2007 15:23:30 EMD-3 Temp. high warn state had changed from HTTP by 10.0.100.112
03/08/2007 15:23:33 Temperature-3 of SENSOR 3 (28.1 C) over high warning temperature (27 C)
03/08/2007 15:23:34 EMD-3 Humidity high warn state had changed from HTTP by 10.0.100.112

Figure 5-2 Alarm Window

5.2 History Log Monitor

Click the button in the top right-hand corner of the inSentry Pro home page to display the EMD History Log Monitor. The EMD history log is presented in line graph. By default, all the EMD parameters will be shown on the same graph. You can select any combination of the parameters to be displayed by checking the check box next to each parameter on the monitor screen. Click the **Refresh** button at the bottom of the page to apply the changes.

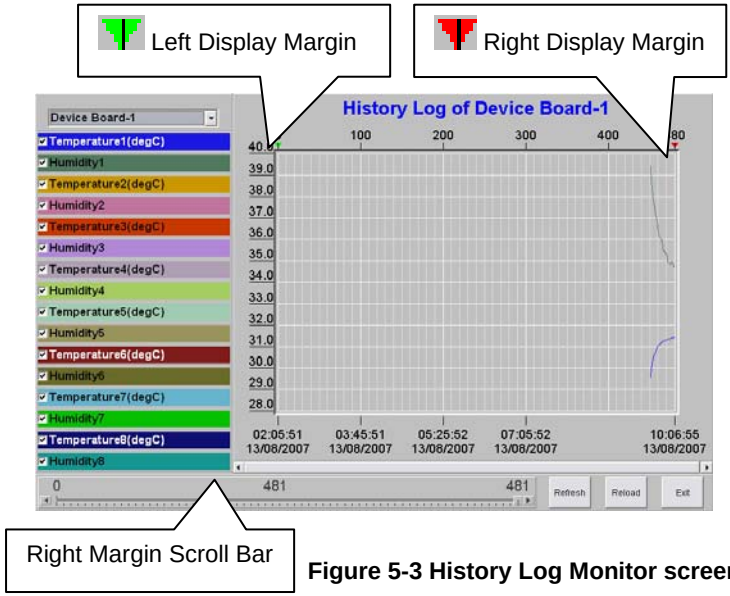


Figure 5-3 History Log Monitor screen

Refresh	Click the **Refresh** button to apply the changes made to the parameters.
Reload	Update the monitor and reset the right display margin.
Exit	Close the window.

5.3 Extended History Log Monitor

Click the button in the top right-hand corner of the inSentry Pro home page to display the EMD Extended History Log Monitor. This monitor shows the EMD extended history log in line graph. By default, all the EMD parameters will be shown on the same graph. You can select any combination of the parameters to be displayed on the graph by checking the check box next to each parameter on the monitor screen. Click the **Refresh** button to apply the changes.

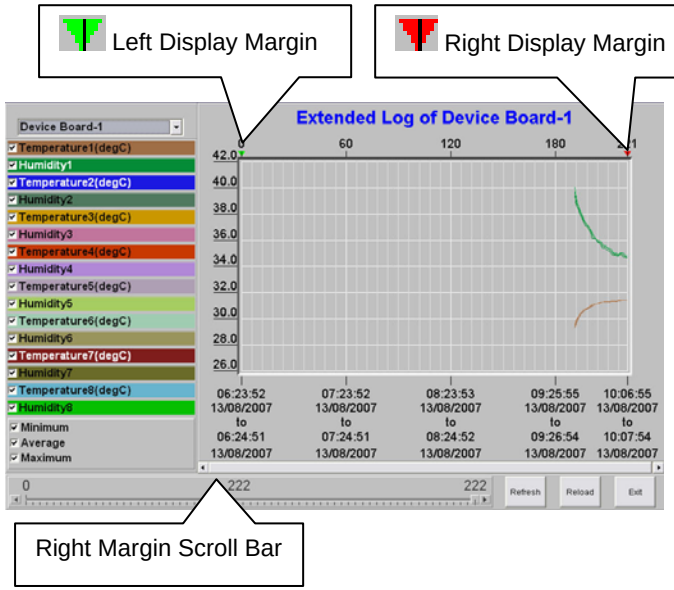


Figure 5-4 Extended History Log Monitor screen

Minimum	Display the minimum values of the temperature, humidity, or voltage of the EMDs, sensors, and the output devices.

Average	Display the average values of the temperature, humidity, or voltage of the EMDs, sensors, and the output devices.
Maximum	Display the maximum values of the temperature, humidity, or voltage of the EMDs, sensors, and the output devices.
Refresh	Click the **Refresh** button to apply the changes made to the parameters.
Reload	Update the monitor and reset the right display margin.
Exit	Close the window.

6 Managing the inSentry Pro via SNMP

To manage your inSentry Pro or EMD via SNMP NMS (Network Management Station), you may want to customize some of the SNMP settings (such as system name, system contact and system location).

Note: Before using the inSentry Pro in an SNMP environment, the IP address and the gateway must be configured properly. See Chapter 3.1 Configuring network settings for the inSentry Pro for details.

6.1 Setting SNMP Access Control

The inSentry Pro supports SNMP protocol. You can use SNMP NMS to manage EMD through the network. The IP address of the workstation must be entered in the inSentry Pro write access table to prevent unauthorized users from configuring the inSentry Pro via HTTP or SNMP protocols.

Note: If you do not specify the IP address of the workstation in the Access Control Table (via serial port or Telnet) or the SNMP/HTTP Access Control (via web browser) in the inSentry Pro, you can only view the EMD status from the SNMP, and will not be able to perform any configuration on the inSentry Pro or the EMD. (See Chapter 3.1 Configuring network settings for the inSentry Pro, and Chapter 3.2Configuring inSentry Pro via Telnet, for details.)

6.2 Setting the SNMP Trap Receiver

To configure the SNMP trap receiver setting, please access the inSentry Pro via web browser and go to the “System/ Trap Receivers” page (see Chapter 4.5.2).

6.3 Setting up SNMP Manager Software

Follow the steps below to set up SNMP manager software:

1. Add the MIB file in the inSentry Pro CD-ROM to the MIB database of the SNMP manager.
2. Search for the inSentry Pro in the network.
3. To access the inSentry Pro SNMP agent, use ‘public’ for the GET community string, and use the read/ write password (default is **admin**) for the SET community string.

GET community string: **public** SET community string: **admin**

For more information, please refer to the MIB file on the inSentry Pro CD-ROM.

Appendix A. Technical Information

A1 DIP Switch Definition

Figure A-1 DIP switch

SW1	SW2	Function Mode
ON	ON	Manufacture Diagnostic Mode
ON	OFF	Serial Setting Mode
OFF	ON	Add Default Password
OFF	OFF	Operational Mode

Appendix B. Firmware Upgrade

B1 General Information

To perform firmware upgrade, the inSentry Pro must be connected to the same network as the workstation from which the file is to be sent. You must be have administrator status and have the read/ write authority for the inSentry Pro.

B2 Upgrading inSentry Pro Firmware by Upgrade Utility

To perform firmware upgrade, run the **upgrade.exe** program from the inSentry Pro CD-ROM. This program is compatible with Windows 2000/ XP and later operating systems.

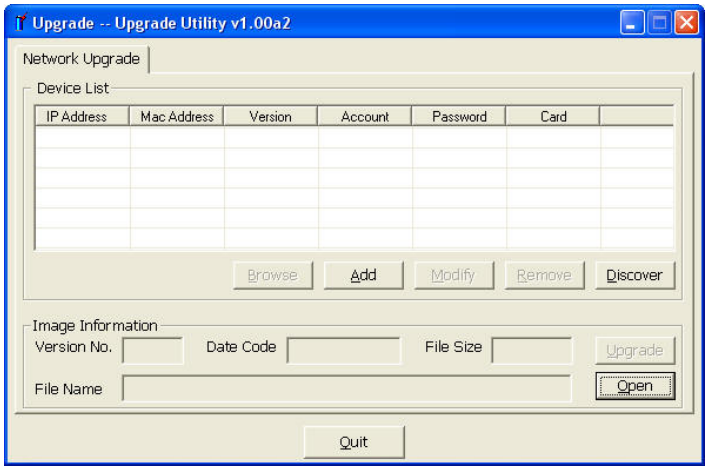


Figure B-2 upgrade.exe program screen

1. **Device List:** Display the address of the inSentry Pro present in the local network.

2. **Discover:** Search for the inSentry Pro on the local network.
3. **Add:** Add the IP address of an inSentry Pro to the Device List manually.
4. **Modify:** Modify the parameters of the inSentry Pro on the list.
5. **Upgrade:** Send the program loaded with the **Open** button to the selected inSentry Pro on the list.
6. **Open:** Open and load the new image file for upgrade.
7. **Remove:** Remove the selected inSentry Pro from the list.
8. **Quit:** Exit the program.